

on other characters. It is an interesting fact that the ancient *Prepinus* shows these "bars," which fact helps to establish their ancient character. The total result is to emphasize strongly the distinctness of the araucarians from all the other Coniferales.—J. M. C.

Embryo sacs of some Onagraceae.—An investigation²⁷ of *Epilobium angustifolium*, *E. Dodonaei*, *Oenothera biennis*, and *Circaea lutetiana* shows an interesting variation from the conventional development of the embryo sac. The usual tetrad of four megaspores is formed and the lowest one enlarges and begins to develop in the well-known way, but as soon as the four-nucleate stage is reached, two synergids and an egg are formed at the micropylar end of the sac, leaving one free nucleus in the middle or toward the antipodal end. This sac looks like that of *Cypripedium*, as described by Miss PACE,²⁸ but is formed from one megaspore, while that of *Cypripedium* is formed from two. At fertilization, one male nucleus fuses with the nucleus of the egg and the other with the single polar nucleus, so that there is no triple fusion as in *Cypripedium*, where one of the synergids takes part. The embryo and endosperm develop in the usual way.—CHARLES J. CHAMBERLAIN.

The original *Oenothera Lamarckiana*.—GATES²⁹ has discovered a manuscript in the Sturtevant collection of the library of the Missouri Botanical Garden "which proves that this plant was originally a species growing wild in Virginia, and that it was the first *Oenothera* introduced into European gardens, about 1614." In view of the fact that the origin of this important species has been in doubt, and that it has been claimed to have originated in cultivation, this discovery is noteworthy. The record referred to is in the form of a long marginal note in a copy of BAUHIN'S *Pinax*, by JOANNIS SNIPPENDALE, and is an accurate description of the plant. "The record is as complete and accurate as could be desired, to prove to one familiar with the characters of these forms the identity of the plants in question." The plant was described under BAUHIN'S name, *Lysimachia lutea corniculata*.—J. M. C.

Color inheritance in *Lychnis*.—SHULL³⁰ has discovered that the purple color in *L. dioica* is a compound character, produced by the interaction of three distinct and independent genes. The two types of purple color present in different individuals are a reddish purple, changed to blue by alkalis, and a bluish purple, changed to red by weak acids. The bluish or alkaline color is hypostatic to the reddish or acid color, which is the reverse of the condition found in all other

²⁷ MODILEWSKI, J., Zur Embryobildung von einigen Onagraceen. Ber. Deutsch. Bot. Gesell. 27:287-292. pl. 13. 1909.

²⁸ BOT. GAZETTE 44:353-374. pls. 24-27. 1907.

²⁹ GATES, R. R., The earliest description of *Oenothera Lamarckiana*. Science N.S. 31:425, 426. 1910.

³⁰ SHULL, GEORGE H., Color inheritance in *Lychnis dioica* L. Amer. Nat. 44:83-91. 1910.